



## Data Analytics I – MS Office Instructions 2024

### **Omaha Steaks Catering Division**

“Omaha Steaks manufactures, markets and distributes a wide variety of premium steaks, red meats and other gourmet foods. These products are custom cut and packaged to serve the needs of our various markets. We are a family business and have been since our founding in 1917.” For more information visit [www.omahasteaks.com](http://www.omahasteaks.com).

This year, Omaha Steaks has partnered with the MWC3 in a pilot project to investigate using the new Omaha Steaks Catering Services for the Saturday night banquet by using this year’s attendance data. The Conference Committee has asked you to finish preparing the database of attendee information, the spreadsheet for analyzing the data after the banquet, the presentation to be given at the conference wrap-up, and the formal proposal for the 2024 Conference Committee, a copy of which is to be forwarded to Omaha Steaks.

Please make sure that you submit **ALL** of the following files, otherwise the committee will NOT evaluate your work. The deliverables are:

1. ***TeamNumber\_OSCDDataAnalysis.xlsx***
2. ***TeamNumber\_OSCDPresentation.pptx***
3. ***TeamNumber\_OSCDPresHandout.pdf***

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Start with the [MWC3TeamNumber\\_OSCDDataAnalysis.xlsx](#) file.

- Use Named Ranges when Possible
- Note existing named ranges
- Autofit Column width(s) as necessary
- Use absolute, relative and/or mixed cell referencing when appropriate to copy formulas.

Use Power Query Editor to get and transform data from [Institutions.xlsx](#).

- In PQE delete the Zip, Phone and Web columns.
- Change “Name” column to “School”.
- Close and load to A1 of the Institutions worksheet.
- Create named ranges for “ID” and “School” columns.
- \*\*Note the named range created by PQE called Institutions.

On the Registrants worksheet use PQE to get and transform data from the [Registrants.txt](#) file.

- In Power Query Editor move the Last\_Name column to the left of the First\_Name column.
- Trim the blank spaces from the First\_Name column
- Merge the First\_Name and Last\_Name columns by using a custom separator of a comma and space to create a new column titled “Full\_Name”.
- Close and load the data to A1 of Registrants worksheet.
- Create “Full\_Name” named range.
- Create a new Column titled “Institution”. Under the Institution column use XLOOKUP to identify the correct school. Copy/paste-values the results to replace the XLOOKUP function.
- Delete the Institution\_ID column. Create an “Institution” named range for the Institution column.
- Under the Confirmed column replace the value of “TRUE” with a “Yes” and replace “FALSE” with a “No” (do this with Find/Replace).
- Insert a new column titled “Cost” to the right of the Menu\_ID column (will come back to this later).
- Create a named range for “Menu\_ID”, “State” and “Confirmed” columns.

On the Meals worksheet get data using MSQuery from the access database ([OSCDDataAnalysis.accdb](#)) Menu\_Information\_and\_Nutrition query.

- Add all columns. (10 fields)
- In Power Query Editor move Meal\_Cost to 2<sup>nd</sup> column and move Meal\_Calories to 3<sup>rd</sup> column and move Meal\_Carbs to 4<sup>th</sup> column.
- Return data to Meals worksheet cell A1.
- Change the “ID” column header to “Selection”.
- Create name ranges for “Selection”, “Meal\_Cost” and “Meal\_Calories”.

On Registrants worksheet use XLOOKUP to identify the Cost of current meal selections (H column).

- Create a named range for “Cost”.

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On Menu Options worksheet add column headers in B1:G1 and then calculate in B2:G5 the: “#Meals” (COUNTIF), “%Meals” (divide by SUM), “Cost” (XLOOKUP and multiply), “Tax” (multiply by named range), “Gratuity” (multiply by named range) and “Totals” (SUM).

- In B6:G6 Calculate totals for each column. Format D6:G6 as currency.
- In A14:A18 enter labels for “APR”, “Periods”, “Payment”, “Total Paid”, “Interest Paid”.
- The APR is 4.4%, number of payment periods is 4 (1-year financing).
- Calculate the payment for a loan on the total cost of meals, total of payments made, and interest paid. Reflect all as positive values.
- Create a 3-D pie chart of the selections by % (Menu Option and %Meals).
- Apply chart style 7 and colorful palette 1.
- Add data labels on the inside end of category name (Open Format Data Labels panel). Change the data labels to font 12 black and bold.
- Change the chart title to “Meals by Menu Option”.
- Delete the legend and place the upper left corner of the chart in D8.

Create a Pivot Chart and Table on a new worksheet from the data on Registrants worksheet.

- Display the State (Axis) and Confirmed (Values) data with the ability to Filter by Menu\_ID and Institution and the Legend by Confirmed. Display only “Yes” confirmations.
- Resize the chart to see all states.
- Rename the worksheet “Participation”. Title the chart “Participation by State”.
- Change the vertical axis bounds to Max 35.
- Move the chat to a new chart sheet named “Pivot\_Chart”.

On the Institutions worksheet add columns (in F1:H1) for “Inst\_Confirmed”, “Not\_Confirmed” and “Participation”.

- Use COUNTIFS to calculate Confirmed and Not Confirmed and then calculate the participation %.
- Format the Participation results as percentage.
- Create a “Total\_Meal\_Cost” column. Use SUMIF to calculate the total meal cost for each institution. Format the results as currency.
- In H36 type “Grand Total”. In I36 calculate the grand total, format as currency and verify the result with cell D6 on the Menu Options worksheet.
- Create and title a bar chart of “Participation % by Institution”. Move to a chart sheet and add data labels to the outside end. Name the Chart Sheet “AP%”

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One additional task that you have at hand is to present a summary of the Catering Proposal to the MWC3 Board of Directors. Your presentation must include information about the proposal from Omaha Steaks, outlining why a dinner serving food from Omaha Steaks will be preferred by the participants. Supplement your position by using tables and charts that you created in your spreadsheet.

As you create the presentation using PowerPoint, adhere to the following guidelines:

1. The presentation should use exactly six (6) slides. Use colors, graphics, and styles consistent with other documents used in this project. Apply transitions to all slides.
2. Remember to adhere to the Rule of Sixes: No more than six words per line, six lines per slide.
3. Insert a footer with page number and date (the date should not auto update), and the footer should not display on the first slide.
4. The first slide must be a title slide, which contains contact information for the presenters (Your team number) and the MWC3 logo (**mwc3.png**)
5. The second and third slides must contain information about Omaha Steaks®, including their logo (**omahasteakslogo.jpg**). Create a hyperlink to the Omaha Steaks website using the logo. (Note: you select the information to include)
6. The fourth slide must contain table data, linked to the data you generate in Excel, showing the cost of the award banquet for each school that is participating.
7. The fifth slide must contain the 3D Chart, linked to the chart you created in Excel, showing the portion of attendees who chose each menu option.
8. The sixth slide must contain a table that shows the Meal Nutrition Information from columns A-D on the Meals worksheet. Make sure the slide is appropriately titled.
9. Save your presentation as **TeamNumber\_OSCDPresentation.pptx**
10. Create a PDF document that displays slide handouts, showing six slides per page, and save it as **TeamNumber\_OSCDPresHandout.pdf**

At this time, return to Page 1 of this instruction booklet and make sure you have all the documents listed as deliverables on that page. If you have any time remaining, see the next page for the Tie-Breaker instructions.

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## **SUPPLEMENTAL ACTIONS FOR TIE-BREAKER**

- On the Dashboard worksheet Get Data From Access Database ([NCCSolution\\_OSCDDataAnalysis.accdb](#))
- Select multiple items “Appetizers, Desserts, Entrees, Pasta\_and\_Soups, Sauces, Vegetables”
- Return data to Excel (creates a new worksheet for each meal-course)
- \*Note the named range created for each newly created worksheet.
- Change the “Name” column on each meal-course worksheet to the corresponding meal-course (e.g. Entrees, Vegetable, etc....)
- Delete the “ID” column on each meal-course worksheet
- In B3:B7 apply List validation for each meal-course
- In C3:C7 use VLOOKUP to retrieve cost of each meal-course. Format results as currency.
- Include an IFERROR around the Cost and Calories formulas for Sauces in case someone does not want sauce.
- In D3:D7 use VLOOKUP to retrieve the Calories for the selection.
- Calculate the TOTAL meal cost in C9. Calculate the meal Calories in D9
- In H3 apply list validation to lookup a participant (student) by name.
- In H4:H7 use XLOOKUP and named ranges to retrieve the Food Selection, Confirmation status, School and Home State of the selected participant.